

ABSTRACT OF THE INVENTION

A toner fixing device that includes a fixing member and a member formed opposite the fixing member so as to form a nip between the fixing member and the opposite member. The device is supplied with power from a main power source. A charger connects an electric double-layer capacitor to the main power source. A fixing member heater is powered by the electric double-layer capacitor and heats the fixing member. A controllable switch is disposed between the electric double-layer capacitor and the fixing member heater. A fixing member temperature sensor is in contact with the fixing member. A controller controls the switch such that the electric double-layer capacitor connects to or disconnects from the heater based on comparing a temperature sensed by the fixing member temperature sensor to a temperature threshold value so that a toner image is more efficiently fixed onto a recording medium passing through the nip.